

CLAIMS

What is claimed is:

1. An adjustable mechanical stop for a tube bender comprising:
 - an elongated arm having a pivoting end and a free end, wherein the pivoting end is pivotally connectable to a tube bender;
 - a stop disposed at the free end of the elongated arm, wherein the stop is disposed to engage a tube in the tube bender; and
 - a lock disposed along the elongated arm, wherein the lock is engageable with the tube bender to adjustably secure the stop relative to the tube bender.
2. The adjustable mechanical stop according to claim 1, wherein the mechanical stop is infinitely adjustable along the tube bender.
3. The adjustable mechanical stop according to claim 1, further comprising a locking member disposed proximate to the pivoting end, wherein the locking member is adapted to releasably secure the elongated arm relative to the tube bender.
4. An adjustable mechanical stop for a tube bender comprising:
 - a generally U-shaped body having a closed end and an open end, wherein the open end is pivotally connectable to a tube bender and wherein the closed end is disposed to engage a tube in the tube bender; and
 - a lock disposed along the generally U-shaped body, wherein the lock is engageable with the tube bender to adjustably secure the generally U-shaped body relative to the bender.
5. The adjustable mechanical stop according to claim 4, wherein the closed end is infinitely adjustable along the tube bender.

6. The adjustable mechanical stop according to claim 4, further comprising a locking member disposed proximate to the open end, wherein the locking member is adapted to releasably secure the generally U-shaped body relative to the tube bender.
7. An improved tube bender comprising:
 - a tube bender including:
 - a handle having a free end and a connected end; and
 - a bender head connected to the connected end of the handle, wherein the bender head includes an arcuate channel sized to allow a tube to be disposed therein; and
 - an adjustable stop including:
 - an elongated arm having a pivoting end pivotally connected to the tube bender and a free end disposed to travel along the arcuate channel;
 - a stop member connected to the free end of the elongated arm such that the stop member is traversable along the arcuate channel; and
 - a lock disposed along the elongated arm, wherein the lock is engageable with the bender head to adjustably lock the stop relative to the bender head such that, when a tube is disposed within the arcuate channel and bent along the arcuate channel, the stop member engages the tube at a desired location and prevents further bending of the tube along the arcuate channel.
8. The improved tube bender according to claim 7, wherein the stop member is infinitely adjustable along the arcuate channel.

9. The improved tube bender according to claim 7, further comprising a locking member disposed proximate to the pivoting end, wherein the locking member is adapted to releasably secure the elongated arm relative to the tube bender.
10. The improved tube bender according to claim 7, wherein the bender head further comprises a plurality of multiplier indicating indicia disposed thereon.
11. The improved tube bender according to claim 10, wherein the plurality of multiplier indicating indicia comprise a plurality of whole numbers.
12. The improved tube bender according to claim 7, wherein the bender head further comprises a plurality of angle indicia disposed thereon.
13. The improved tube bender according to claim 7, wherein the elongated arm is generally U-shaped and comprises an open portion and a closed portion.
14. The improved tube bender according to claim 13, wherein stop member is disposed at the closed portion of the generally U-shaped member.
15. A method of bending a tube in a tube bender comprising:
 - providing a tube bender including:
 - a handle having a free end and a connected end; and
 - a bender head connected to the connected end of the handle, wherein the bender head includes an arcuate channel sized to allow a tube to be disposed therein;
 - and
 - an adjustable stop including:
 - an elongated arm having a pivoting end pivotally connected to the tube bender and a free end disposed to travel along the arcuate channel;

a stop member connected to the free end of the elongated arm such that the stop member is traversable along the arcuate channel; and a lock disposed along the elongated arm, wherein the lock is engageable with the bender head to adjustably lock the stop member relative to the bender head such that, when a tube is disposed within the arcuate channel and bent along the arcuate channel, the stop member engages the tube at a desired location and prevents further bending of the tube along the arcuate channel;

pivoting the stop member along the arcuate channel to a desired location; engaging the lock to adjustably lock the stop member to the bender head at the desired location;

inserting a tube into the arcuate channel;

bending the tube along the arcuate channel until the tube engages the stop member;

and

removing the tube from the tube bender.

16. The method according to claim 15, further comprising, after bending the tube:
 - disengaging the lock;
 - repositioning the stop member to a second location;
 - reengaging the lock to adjustably lock the stop member to the bender at the second location;
 - adjusting the tube relative to the arcuate channel; and
 - bending the tube an additional time along the arcuate channel until the tube engages the stop member.